

# Introduction to DSLR Flash

# Getting the Most from Your Flash



Why have a flash class? Well, flash is a great way to improve your photography. Flash makes taking pictures in low light possible. Flash can also fill in areas in your photographs that need more light. But as advanced as technology has become, flash still confuses many photographers. Often they don't know when to use it, and how to best take advantage of all the settings and accessories. This class will walk you through the basics and a little beyond basics: from when to use flash, what settings can help, and what accessories can make your life easier and your pictures better.

What types of flash are there? There are four main types of flash that we are going to discuss:

## The Pop Up

The pop up flash is the small little flash that is included on most Nikon cameras. It is a great way to add a little light into your scenes, but it does have its limitations.

## External Flash

These are units that are purchased separately. They sit on top of the camera, making the flash farther away from the lens and helping to reduce red eye. These have the advantage of more power and much more flexibility and control than a pop up flash. The current units available from Nikon are: SB600, SB900, SB400, and R1C1 Macro Flash. Promaster is a company that has flashes for several different camera manufacturers. The current units available from Canon are: 580EXII, 430 EXII, MR-14 ex ring flash and the MT-24ex twin light. Units available for Olympus are the FL-36R and the FL-50R. Some of the current Promaster are the 7500EDF, 5750DX, and 5550DX units.

## Remote Flash

This is the ability to have the flash away from the camera. There are two ways to do this. One is to use a remote cord and any of the Canon,



Olympus, Nikon or Promaster units have this capability. The second method is wireless flash. Wireless control depends on the camera and flash.

## Ring Flash

These are flash units designed for close-up photography. Either a light ring that surrounds the lens, or a pair (or more) of small flashes mounted on a ring on the lens, these provide good close-up flash.

## Shooting Modes

When using flash photography there are several exposure modes your camera is capable of that you can use. Start in whatever mode that you feel comfortable with shooting in already. In this class, we'll start shooting in Program, and eventually cover some information on Manual mode. The great thing about flash is that TTL, or Through The Lens metering, takes care of exposure for you. The camera and flash calculate how much light to add to the scene and TTL attempts to put out the right amount of flash, without your having to think much about it. As the photographer, you decide if it worked well or not and you can change camera and flash settings accordingly for subsequent shots.



## Sync Speed

Sync speed is the fastest shutter speed at which your camera is able to shoot along with flash. It is a number that you cannot exceed. Sometimes you might want to shoot at a slower shutter speed, which we will explain. Different cameras have different sync speeds. Your camera would not let you shoot above that speed when you have engaged a flash.

## Flashes Available from Nikon



## Flashes Available from Canon



### Note on White Balance:

White balance in newer cameras works great; in fact for many circumstances your camera may never need to leave AUTO white balance. In flash work you will want to set your camera to one of the white balance presets, either Flash, or Daylight. Total control and flexibility can be obtained by shooting in RAW and proper use of a gray card.

### Fill Flash

Fill flash is using your flash to fill in shadows. You essentially force the flash to fire and let the camera figure out how much light to add to the scene. If you didn't force it on, your flash might not fire automatically in bright sun, for instance, even though there would be benefit from it. Fill flash can help on sunny days when your subject is in a shadow. When shooting at the beach, often times the sun isn't coming from the right direction to light your subject, and you can get harsh shadows. Simply pop up the flash with the flash button, or turn on the external flash. You can be subtler about the effect by using flash exposure compensation. This is when you under-power the flash output.

### TTL

TTL is going to be a term that we hear a lot when it comes to flash. It stands for Through-the-Lens. It is an automatic way to get great flash pictures. When the flash is turned to TTL, the flash fires and shuts off when the proper exposure has been achieved. This is going to be the mode that we keep the flash in most of the time.

### Types of Flash Light

**Direct-** Direct Flash is when the flash is aimed directly at the subject, without any diffusion.

**Diffused** - Flashes can be softened through the use of a diffuser such as an OmniBounce, or Gary Fong Lumisphere.

**Bounced** - Another way to soften the light is to bounce it off a ceiling, wall, or a reflector.

### Diffusers

Direct flash can be harsh, causing too much contrast in the scene. Photographers have been looking for ways to soften the look of their flash ever since their invention. There are several products available to diffuse flash; some like a diffusion dome, come with the SB 800 and SB 900, others are purchased separately. STO-FEN makes a product compatible with the SB 600 and many other kinds of speedlights called the Omni Bounce. Another product that does an outstanding job in softening light, and has been wildly successful with wedding and event photographers is the Gary Fong Lightsphere. Its round shape does a great job of wrapping around the subject and filling the room with light.

## Dimensional Light

Flash coming from straight above the camera can be flat sometimes, with too many harsh shadows. If the photographer can bring the light from a less direct angle, the light has more dimension as it pours over the subject. Light coming from about a 45-degree angle, producing a nice triangle on the opposite side of the face, is commonly called Rembrandt lighting. If this is still too harsh, you can add a reflector to the shot to fill in some of that shadow area.

This more directional lighting can be accomplished with a remote cord connected to the camera hot shoe while hand-holding the external flash off to one side. You can also place the flash on a stand. One Nikon remote cord is the SC-28. There is also a cord available from Promaster.

Remote cords also add more dimension to Macro shots. When the flash is on a remote cord the flash need not always be coming from straight on. It can come from on top, the side or behind. This method helps the light seem much less artificial, and more like natural light.

## Brackets

Brackets are another way to get your flash farther away from the lens and eliminate the need to hand-hold the flash. Flash brackets usually allow the photographer to place the light above the lens in either the vertical or horizontal orientation. It is often necessary to use a remote cord with this accessory.

## Creative Lighting System

Nikon has built an incredible wireless lighting system called the Creative Lighting System, or CLS. The SB 600, SB 800, and the SB 900 can all be controlled wirelessly with some Nikon cameras, and others with the use of a command unit. Wireless lighting can serve as a very lightweight studio, or just as a fill light.

Cameras compatible as serving as commanders: The D200, D300, D700, D70, D80, D90. The RU 800 (which can be purchased separately, or used as part of the R1C1 macro flash) and the SB 800 or SB 900 can serve as commanders if your camera does not have that feature.

## Wireless Flash with Canon

Canon has a remote flash system built around the STE-2. The STE-2 is a commanding unit which will control the 580 EX, 580 EX II, and the 430 EX II. A commander and remote flashes are needed to work. Any camera in the Canon system can command flashes with the STE-2 or a 580 EX II which can act as a commander. The 7D body is currently the only camera capable of acting as a commander without the STE2 or 580 EX2.

## Wireless Flash with Olympus

Olympus has a very easy to use wireless flash system. All you need is a wireless flash and commander camera, either the FL-36R or FL-50R-make note it must be the R. The cameras capable of acting as commanders are the E-3, E30, E-420, E-520 and E-620.

## Ring Flash

A ring light produces very flat light, which fills in shadows. It is primarily used on Macro shots at a very close range and in some fashion photography. It can also be a great way to freeze action from sources such as wind, or for moving subjects, like insects. Promaster's MacroLume is a very good and inexpensive ring flash. It can be used for flowers, bugs, dental work, or taking very detailed shots of eyes.

Nikon photographers passionate about macro photography should consider Nikon's R1C1 Macro flash unit. It comes with a pair of small flashes (additional units can be added) attached to a ring, which holds the flashes onto the camera lens if desired. The kit also includes the commander unit (SU800) and lots of accessories,

which aid in taking great macro shots. The R1C1 differs from other macro units in its ability to be used wirelessly.

Canon photographers passionate about macro photography should consider Canon's MR14EX Macro flash ring light. Or for even more versatility with macro photography Canon offers the Macro Twin Lite MT-24EX. This unit offers two separate flash heads which can be swiveled around the lens, can be aimed separately, and even removed from their holder and mounted off-camera.

## What's SU-4?

SU-4 is a mode of Nikon wireless flash that does handle TTL, but has been outdated by the Nikon's Creative Lighting System. The SU-4 mode can be used to trigger the flashes in the manual mode if you want to work outside the CLS. For example you can use the SB-800 in SU-4, manual only mode with other camera systems.

## Gels

Gels are colored pieces of plastic that go over a light source to change its color and/or character. These are sold by a few companies such as Honl, Bogen and Rosco, and are available in stores as well as a few lighting supply houses. Please note that these gels are specially made to be resistant to heat and color changes. Using ordinary plastic can provide funky results and possibly damage your strobes. Even small speedlights put out some heat, so be careful.

Gels can also be used to match your speedlights to the ambient light. For example, adding a CTO (color temperature orange) gel will match your speedlights to tungsten light making no difference between your main light and the ambient light. Doing this you will have a photograph with even light front to back with only one color temperature.

For example, if you were shooting in a room with exclusively tungsten light and wanted to use flash, you can set your white balance to tungsten, and then put a tungsten gel over your flash. The tungsten gel is the orange gel that comes with the SB 900 and the SB 800.

## The Reflector

Reflectors are photographic accessories that allow you to bounce light back into your scene. Some reflectors also can be used to diffuse light. Reflectors should be used when you want to soften the light, or to fill shadows in your scene. Promaster's 5-in-1 reflector is a great tool for this. The 5-in-1 packs very small and has 3 different reflective surfaces, plus one light blocking, and one diffuser. It comes in 22", 32", and 41" size kits. Size is based on the diameter when opened.

When reflecting light, place the reflector on the opposite side of the subject from where the light is coming. Just like in billiards, the angle of incidence equals the angle of reflection. In other words, the light rays bounce from the reflector at the same angle at which they hit it.

## Websites

<a href="http://www.nikonusa.com">www.nikonusa.com</a>	<a href="http://www.canoneos.com">www.canoneos.com</a>
<a href="http://www.strobist.com">www.strobist.com</a>	<a href="http://www.nikonians.com">www.nikonians.com</a>
<a href="http://www.olympusamerica.com">www.olympusamerica.com</a>	<a href="http://www.photozone.de">www.photozone.de</a>

## Know your equipment

"...one is not really a photographer until preoccupation with learning has been outgrown and the camera in his hands is an extension of himself. There is where creativity begins."

— Carl Mydans